

Title of Activity: Squaring the Triangle

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Name of WBLT:	Interactivate
Link to WBLT:	http://www.shodor.org/interactivate/
Tiny URL Link:	http://tinyurl.com/yr96s9
Main Strand:	Grade 8 – Geometry and Spatial Sense
Concepts(s) Addressed:	<ul style="list-style-type: none">- Determine the Pythagorean relationship, through investigation using a variety of tools and strategies
Learning Goal(s)	By the end of this activity, students should be able to <ol style="list-style-type: none">1. Describe the relationship between the lengths of the sides of a right angle triangle using the Pythagorean relationship as a references2. Apply the Pythagorean relationship to examples that have triangles with whole number side lengths
Expected Time	How long will your activity take → 30 minutes
Introduction Activity	<ul style="list-style-type: none">• This is a visual representation of the meaning behind the Pythagorean Theorem. This shows that when you change variable while holding another variable constant, it will affect your overall outcome.• Hard to see → They label A,B and C as the angles and not the lengths of the sides• The Pythagorean Relationship should be shown; $a^2 + b^2 = c^2$
Guiding Questions	<ul style="list-style-type: none">• Create a set of guiding questions for the students - you want to focus them on a set of tasks that will help reach the learning goals you set above• If you double the lengths of sides A and B:• What will happen to the area of the square for the hypotenuse?• What will happen to the length of the hypotenuse• What will happen to the angles inside the triangle
Consolidation	<ul style="list-style-type: none">• Can you label the side lengths given only the interior angles to the triangle?• By what factor do the side length squares increase in size if you triple the side length?